Mollusk Restoration

The Center for Mollusk Conservation was founded in 2002 by the Kentucky Department of Fish and Wildlife Resources. Its mission is to restore and recover rare and imperiled freshwater mollusks in Kentucky. Our staff have years of experience in many fields related to fish culture, aquaculture, malacology, shellfish and bivalve culture, algae culture, aquatic ecology, limnology, freshwater ecology, conservation biology, fish and shellfish husbandry, endangered species conservation, population ecology, ichthyology, and many other areas. We have worked with over 70 species of freshwater mussels, 75 species of fishes, 12 species of snails, and dozens of algae species. Our primary focus is the conservation, restoration, culture and propagation of freshwater mussels.

Juvenile mussels of the endangered Cumberland bean (upper left) reared at the Center. CMC Greenhouse with algae culture and mussel tanks (upper right).

Propagated juvenile endangered pink mucket mussels released in 2011

Funding assistance to the Center has come from the following Agencies

Kentucky Field Office

STATE WILDLIFE GRANTS PROGRAM

US Army Corps of Engineers Louisville District

Mussel Mitigation Trust

Kentucky Waterways Alliance
Healthy waterways. Healthy communities.

Center for Mollusk Conservation
established 2002

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Kentucky Department of Fish and Wildlife Resources

Center for Mollusk Conservation

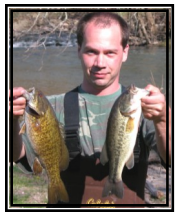
Center for Mollusk Conservation
Frankfort, Kentucky

Meet our Staff

Monte is a native of western Kentucky and a 1989 graduate of Murray State University (B.S. Biology). He obtained a M.S. (aquatic biology) from Tennessee Technological University in 1991 (research focus on large river macroinvertebrate communities including mussels and snails). His doctoral work was completed in 2000 at Auburn University in the Internationally known Department of Fisheries and Allied Aquacultures where he worked on stream macroinvertebrates in pristine streams in Alabama. He worked for 6 years as a malacologist with the Virginia Department of Game & Inland Fisheries where he started the Aquatic Wildlife Conservation Center. He has been with KDFWR since 2002. He is an adjunct professor at KSU, EKU, UK and UofL where he has had 8 graduate students since 2004 (2 new students started in 2013).

Monte A. McGregor, Ph.D.
Director, Malacologist

Adam is a native of central Kentucky and a 1999 graduate of Eastern Kentucky University (B.S. Biology). He obtained a M.S. (biology) from Eastern Kentucky University in 2006 working on host fish relationships. He has extensive experience in fish husbandry and ichthyology and been with the Center since 2002.



Adam C. Shepard, M.S.
Senior Biologist, Ichthyologist

Christopher is a native of Ohio where he received his B.A. & M.S. degrees in Biological Sciences in 2001 & 2004 from Wright St. University. He later obtained a Ph.D. in Biology from the University of Louisville in 2009 working on lab culture with mussels in association with the CMC. He worked as a Post doctoral researcher at Kentucky State University for 3 years with a focus on *in vitro* culture of mussels. He joined the Center's Staff in 2012.

Christopher Owen, Ph.D.
Malacologist/Aquatiic Scientist

Our efforts will hopefully contribute to the quality of wildlife in Kentucky and allow us and others opportunities to enjoy the unique Kentucky outdoor environment. We support hunting, fishing, boating, hiking, wildlife watching, and other outdoor activities.

Fritz a native of New England and a 1994 graduate of Ft. Lewis College, Colorado (B.S. Environmental Biology). He also has a A.S. in electronic technology (KSU 2003). He is finishing his M.S. (aquaculture) from Kentucky State University working with bivalve diets. He has extensive experience in algae culture. He has been with the Center since 2004.

Fritz Vorisek, M.S. candidate
Phycologist/Algae Culturist

Travis is a native of Owen County, KY. He received his B.S. degree from Morehead State University in Animal Science and his M.S. degree from Kentucky State University in Aquaculture. He started at the Center as a seasonal technician in 2010, was hired on as a Fish Tech II in 2011, and recently received the Biologist II position in 2012.

Travis Bailey, M.S.
Fisheries Biologist II

Andy is a native of Maryland. He received his B.S. degree in 2006 from St. Mary's College of Maryland in Math & Environmental Studies, and his M.S. degree in 2011 from Kentucky State University in Aquaculture (specifically working with juvenile mussel diets). He started at the Center for Mollusk Conservation as seasonal technician in 2011, moved into a Fish Tech II position in 2011, and most recently as a Fisheries Biologist I in 2012.

Andy McDonald, M.S.
Fisheries Biologist I

David is a native of Shelby County, Kentucky. He received his B.S. degree in 2011 from Eastern Kentucky University in Wildlife Management. He started at the Center for Mollusk Conservation as a Fish and Wildlife Technician II in 2012.

David Cravens, B.S.
Fisheries Technician II

Seasonal Staff

Andrew Wooldridge (Fish & Wildlife Tech I: CMC)

Robyn Whitted (FW Tech I: Minor Clark Hatchery)

Cole Ripy (Fish & Wildlife Tech I: CMC)

Morgan Kern (Fish & Wildlife Tech I: Mammoth Cave Mussel Research Facility)

Graduate Students/Volunteers: The Center has had several students, interns, and volunteers working in affiliation with several Universities.

Restoration in Action

Mussel releases

The Center has released propagated individuals of several species, such as the fatmucket, black sandshell, slippershell, snuffbox, pink mucket, Cumberland elktoe, and Cumberland bean along with translocations of the northern rifffleshell, fanshell, rough pigtoe, oyster mussel, dromedary pearlymussel, and spectaclecase. These populations are being monitored for success.

Advances in Culture and Propagation

In the last few years the Center has successfully reared several rare and endangered mussels including the Cumberland bean, oyster mussel, salamander mussel, snuffbox, slippershell, fatmucket, plain pocketbook, and others to a stockable size.

Research

The Center has been instrumental in discovering many host fish for several mussels, including the hickorynut, pyramid pigtoe, Cumberland bean, rabbitsfoot, and many others. We have also documented many behavior patterns for mussels including mantle lures, conglutinates, super conglutinates, nets, worm-like lures, and others.

Field Surveys

The Center conducts annual intense quantitative surveys using m^2 grids and has documented the presence and quantity of rare and endangered mussels throughout Kentucky. We have a large group of volunteers who assist every year and can always use extra help.

Juvenile culture systems used to rear juvenile mussels (left). Mussel sampling in the Green River.